

IN THE CLAIMS

Claims 9, 10, and 11 are new.

Please amend the following of the claims which are pending in the present application:

1. (Currently amended) A process for preparing the compound of formula (I) as shown in Scheme 2, characterized in that it comprises the following steps of:

(a) reacting an epoxide compound of formula (III) with vinyl magnesium bromide or vinyl magnesium chloride to produce a β -hydroxy compound of formula (IV);

(b) protecting the hydroxy group of β -hydroxy compound of formula (IV) with [[a]] an alkyloxy carbonyl group by reacting the β -hydroxy compound of formula (IV) with dialkyldicarbonate such as di-*tert*-butyl dicarbonate to produce a compound of formula (V);

(c) cyclization-reacting the compound of formula (V) by a iodolactone forming reacting to produce a compound of formula (VI);

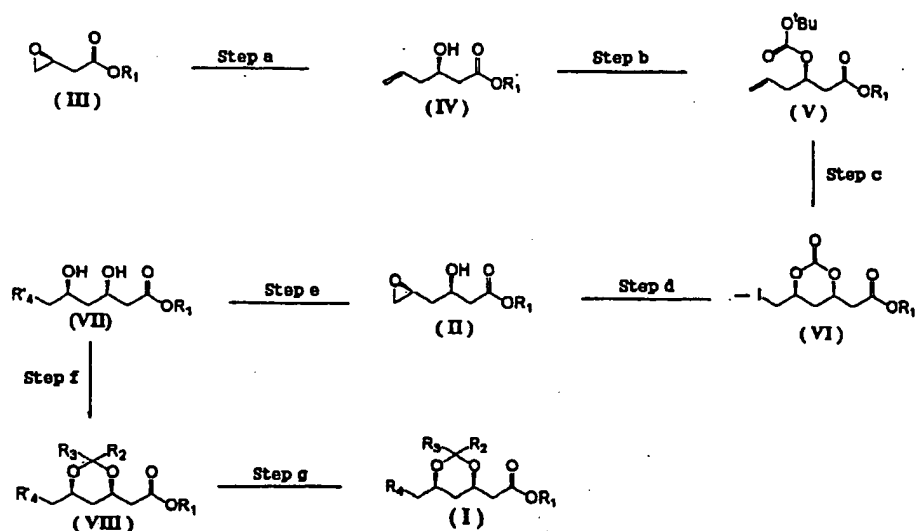
(d) treating the compound of formula (VI) with a weak base such as K_2CO_3 , Na_2CO_3 to produce a compound of formula (II);

(e) producing a 1,3-diol compound of formula (VII) by a ring opening reaction of the compound of formula (II) with various nucleophiles in the presence of a metal catalyst and a phase transition catalyst;

(f) treating the 1,3-diol compound of formula (VII) with an acetylating agent or a ketalizing agent in the presence of an acid catalyst to transform the compound of formula (VII) into a compound of formula (VIII); and

(g) if necessary, producing a compound of formula (I) by exchanging R'₄ group in the compound of formula (VIII):

[Scheme 2]



wherein R₁ denotes a hydrogen atom, alkyl, aryl or alkylaryl, R₂ and R₃ which can be identical or different, denote a lower alkyl or phenyl and are capable of forming a six-membered ring, R₄ stands for hydroxy, amino, alkylamino, arylamino, azido, cyano, halogeno, aryloxy, alkyloxy, arylalkyloxy, alkyl, alkenyl, aryl, or aminomethyl, etc. and R'₄ is the same as R₄ or a group of the precursor form.

2. (Original) A process for preparing the compound of formula (II) as the intermediate as shown in Scheme 2, characterized in that it comprises the following steps of:

(a) reacting an epoxide compound of formula (III) with vinyl magnesium bromide or vinyl magnesium chloride to produce a β -hydroxy compound of formula (IV);

(b) protecting the hydroxy group of β -hydroxy compound of formula (IV) with an alkyloxy carbonyl group by reacting the β -hydroxy compound of formula (IV) with dialkyldicarbonate such as di-*tert*-butyl dicarbonate to produce the compound of formula (V);

(c) cyclization-reacting the compound of formula (V) to produce a compound of formula (VI); and

(d) treating the compound of formula (VI) with a weak base such as K_2CO_3 , Na_2CO_3 to produce a compound of formula (II).

3. (Original) The process as claimed in Claim 1, wherein R_4 is $-CH_2NH_2$ or $-OH$, and R'_4 which is the precursor form of R_4 is $-CN$, $-OAc$ or $-OBn$.

4. (Currently amended) The process as claimed in Claim 1 [[or 2]], wherein R_1 is a methyl, ethyl, or *tert*-butyl group, and both R_2 and R_3 are methyl group.

5. (Currently amended) The process as claimed in Claim 1 [[or 2]], wherein the reaction of Step (c) is carried out at temperature between -80°C and 0°C by IBr dissolved in either trifluoromethylbenzene itself or trifluoromethylbenzen together with an organic solvent such as toluene or benzene.
6. (Currently amended) The process as claimed in Claim 1 [[or 2]], wherein the reaction of Step (d) is carried out under 3 equivalents of potassium carbonate/ methanol or sodium carbonate/ methanol at temperature between -78°C and 0°C.
7. (Currently amended) The process as claimed in Claim 1, wherein the nucleophile used in Step (e) is MCN, MOAc or ~~MOBn~~(wherein MOBn (wherein M denotes Li, Na, or K).
8. (Original) The process as claimed in Claim 1, wherein the metal catalyst used in Step (e) is titanium isopropoxide[Ti(OⁱPr)₄], aluminium isopropoxide[Al(OⁱPr)₃] or trifluoroboron diethylether[BF₃.OEt₂], and the phase transition catalyst is 18-crown-6, 15-crown-5, 12-crown-4 or tetrabutylammonium halide.
9. (New) The process as claimed in Claim 2, wherein R₁ is a methyl, ethyl, or *tert*-butyl group, and both R₂ and R₃ are methyl group.

10. (New) The process as claimed in Claim 2, wherein the reaction of Step (c) is carried out at temperature between -80°C and 0°C by IBr dissolved in either trifluoromethylbenzene itself or trifluoromethylbenzene together with an organic solvent such as toluene or benzene.

11. (New) The process as claimed in Claim 2, wherein the reaction of Step (d) is carried out under 3 equivalents of potassium carbonate/methanol or sodium carbonate/methanol at temperature between -78°C and 0°C.